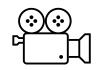


Project Development Team (PDT) #1 Listening Session

January 18, 2024



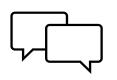
Meeting Format



 This meeting is being recorded for documentation purposes.



 Verbal comments will be received after the presentation during the listening session.



 Written comments and questions can be submitted through the chat.



Introductions

Agenda

- History
- Project Charter
- Goals and Objectives
 - Short and Mid-term Study
 - Reinforcement Areas
- Study Schedule/Key Milestones
- Analysis of Reinforcement Areas
- Study Outreach
- PDT Listening Session
- Next Steps

COASTAL RAIL RESILIENCY STUDY





History



Regional and State Resiliency Activities

ACTIVITY/PROJECT	LEAD ENTITY	TIMEFRAME
Coastal Resilience Strategic Plan	Orange County (OC Parks)	Winter 2024
LOSSAN Regional Rail Corridor Working Group Meeting	CalSTA	Ongoing - quarterly
LOSSAN Regional Rail Corridor Technical Working Group	LOSSAN	Ongoing - quarterly
Del Mar Rail Realignment (Tunneling workshop)	SANDAG	Ongoing
Sediment Management Technical Taskforce Meeting – Oceanside Littoral Cell	SANDAG	Ongoing - quarterly
Secretary Omishakin Coalition Letter	Various	September 1, 2023
Investigative Hearing on Climate Resiliency in Orange County	Second and Fifth District Orange County Board of Supervisors	August 30, 2023
Coastal Rail Update Presentation	California Transportation Commission	August 16, 2023
Subcommittee on LOSSAN Rail Corridor Resiliency	Senator Blakespear	December 11 & August 15, 2023

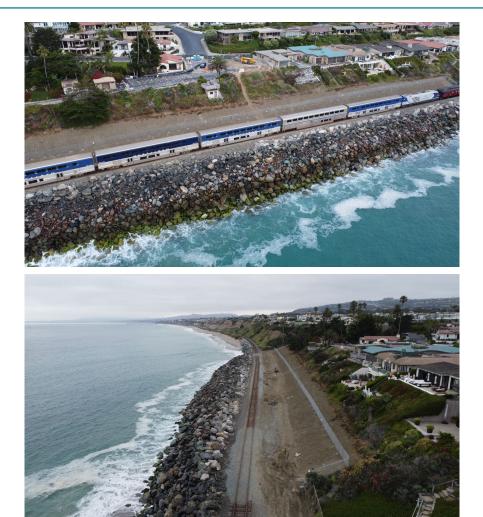
LOSSAN: Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency | SANDAG – San Diego Association of Governments

Local Resiliency Activities

PROJECT	ΑCTIVITY	COST	TIMEFRAME
Cyprus Shore Initial Track Stabilization Project (MP 206.8)	Emergency placement of riprap	\$8 million	September 2021
Cyprus Shore Track Stabilization Project (MP 206.8)	Installation of ground anchors in response to adjacent landslide	\$13.7 million+	October 2022 – August 2023
San Clemente Track Protection Project (MP 204.6)	Installation of temporary barrier wall in response to adjacent landslide	\$6 million	May – July 2023
San Clemente Shoreline Project (Sand Replenishment) (MP ~204.5 – 205.2)	Project would add 251,000 cubic yards of sand to the beach. Repeated at every 5-6 years interval up to 2 million cubic yards.	\$14.3 (65% federal/ 35% city cost sharing)	Fall 2023/ Winter 2024
San Clemente Nature-Based Coastal Resiliency Project Feasibility Study (community meeting)	This Study builds on the Shoreline Monitoring Program to promote long-term coastal resiliency in San Clemente.	\$570,000 (CCC LCP Grant Round 7)	Ongoing – Summer 2025

MP – Mile Post

MP 206.8 Cyprus Shore Track Stabilization Project





Stabilization Strategy:

- Homes constructed on historic landslide
- Pushing track toward the ocean
- Solution Installed tieback anchors to stabilize the slope
- Project in close-out stages
- Passenger Rail Operation Resumed April 2023

MP 204.6 San Clemente Track Protection







Stabilization Strategy:

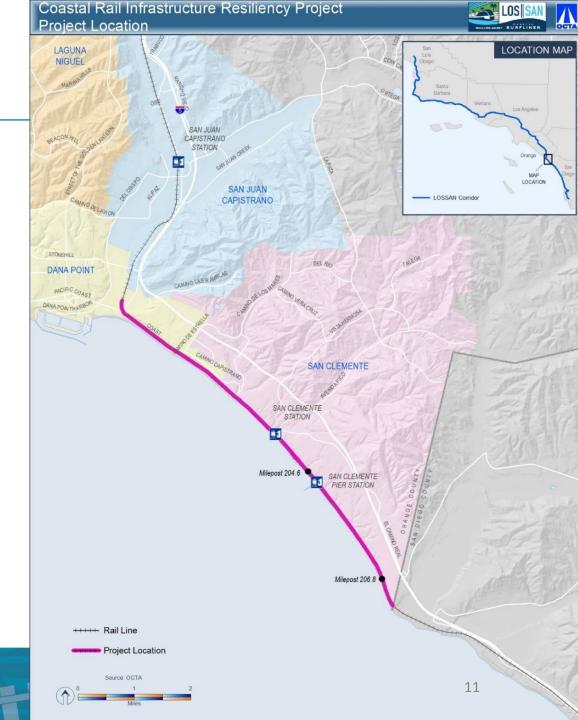
- Installed temporary barrier wall to prevent debris on track
- Removed landslide soil on rail side of wall layout line
- Cleared project site for reinstatement of rail service
- Debris cleared, wall in place and passenger service restored July 2023
- Remove temporary barrier wall after City of San Clemente installs permanent solution



Project Charter

Project Charter Summary

- Project Description
- Purpose & Need
- Evaluation Criteria
- Goals & Objectives
- Study Schedule & Key Milestones
- Outreach & Communication



COASTAL RAIL RESILIENCY STUDY



Goals and Objectives

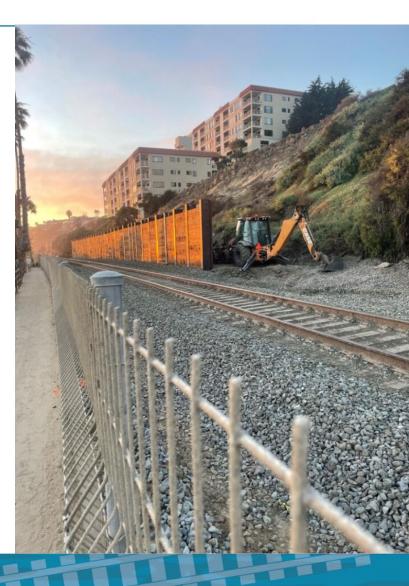
Goals & Objectives for Short- & Mid-term Study

- Continual stakeholder engagement
- Minimize passenger and freight service disruptions
- Protect the railroad in place (up to 30 years)
 - Assess, identify, and develop a program of capital projects within OCTA right-of-way
 - Develop short-term (10 years) and medium-term (30 years) conceptual alternatives
 - Work with adjacent stakeholders to develop a comprehensive coastal capital program with roles and responsibilities beyond the OCTA right-of-way



Goals & Objectives for Initial Assessment

- Conduct an Initial Assessment along OCTA's Coastal Railroad Right-of-Way (MP 200 – MP 207.4)
- Identify activities for immediate action
- Builds on previous efforts to maintain railroad operations
- Identify potential solutions and strategies





Study Schedule/Key Milestones

Study Milestones

LISTENING SESSIONS

- Engage with a wide range of stakeholders with unique and diverse backgrounds and needs
- Obtain feedback from stakeholders and interest groups: Winter '24

INITIAL CONCEPT DEVELOPMENT

- Draft Concepts: Spring to Fall '24
- Obtain feedback from stakeholders and interest groups: Fall '24

DRAFT FEASIBILITY STUDY REPORT

- Draft Report: Spring '25 Summer '25
- Obtain feedback from stakeholders and interest groups

INITIAL ASSESSMENT

- Initiated: Nov '23
- Potential reinforcement areas identified: Dec '23
- Final Report: Jan '24

PDT: Project Development Team

PURPOSE AND NEED/ EVALUATION CRITERIA

- Draft: Spring '24
 - Informed by Listening Session feedback
- Present to PDT: Spring '24

REFINEMENT OF CONCEPTS

- Refined Concepts: Spring '25
- Obtain feedback from stakeholders and interest groups: Spring '25

FINAL FEASIBILITY STUDY REPORT

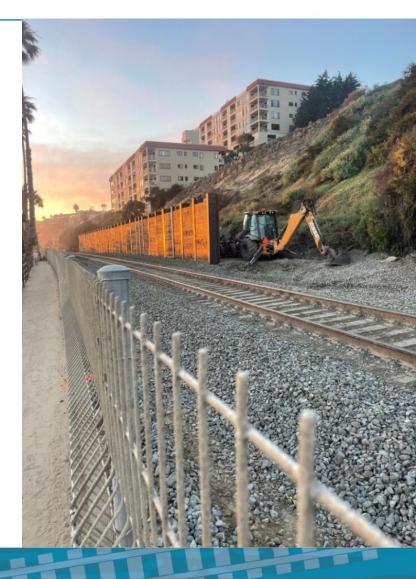
- Final Report: Fall '25
- Present to Board/Publish Final Report: Fall '25



Initial Assessment: Identified Monitoring and Potential Reinforcement Areas

Initial Assessment

- Address Owner/Operators concerns regarding imminent issues affecting the railroad
- Focused on protecting rail operations, track infrastructure, and maintaining railroad service
- Identified Areas of Concern
 - Monitoring Areas
 - Potential Reinforcement Areas
- Identify Next Steps



Summary of Monitoring Areas

Area	Location (MP)	Description	Monitoring (Frequency)
1	200.80 - 201.00	Doheny S - Eroding Beach	Riprap condition and beach erosion (Semi-Annually, Post Storm)
2	202.70	Poche Beach South Shore Pedestrian Underpass and outfall at beach	Beach erosion and scour protection around structures (Quarterly)
3	203.65 - 203.70	North Beach - Potential for undermining of riprap	Riprap condition and beach erosion (Semi-Annually, Post Storm)
4	204.10 – 204.30	Mariposa Pedestrian Bridge	Install inclinometers to monitor potential track-bed movement (Monthly, post storm post-landslide post-earthquake)
5	204.50	Linda Lane - Stable beach but narrow	Riprap condition and beach erosion (Semi-Annually, Post Storm)
6	206.10	Calafia State Beach - upland erosion sand deposits on tracks	Effectiveness of culvert replacement (Post Storm, King Tides)
7	206.70 – 207.25	Cyprus Shore to County Line	Monitor effectiveness of emergency riprap (Semi-Annually, Post Storm)

Monitoring Areas 1 & 2





Monitoring Area #1 MP 200.80 - 201.00 South Doheny Beach Erosion

Monitoring Area #2 MP 202.70 Poche Beach Outfall and Pedestrian Underpass



Monitoring Areas 3, 4 & 5



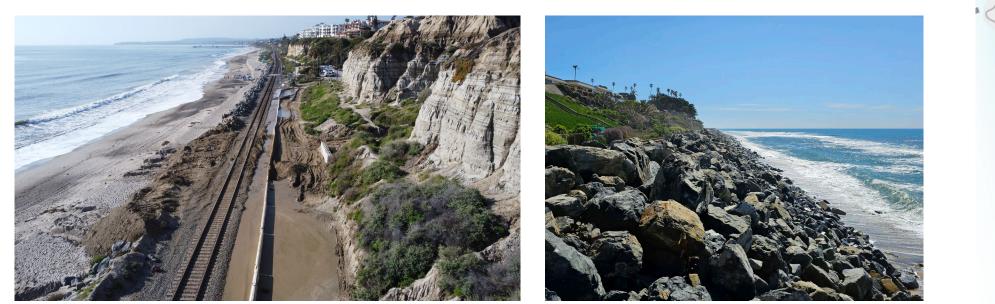


Monitoring Area #3 MP 203.65 - 2037.70 North Beach

Monitoring Areas #4, 5 MP 204.10 – 204.30 Mariposa Pedestrian Bridge, MP 204.50 – Linda Lane



Monitoring Areas 6 & 7



Monitoring Area #6 MP 206.10 Calafia State Beach Monitoring Area #7 MP 206.7 0– 207.25 Cyprus Shore to County Line



Summary of Potential Reinforcement Areas

Area	Location (MP)	Description	Potential Solution(s)*
1	203.85 – 203.90	Erosion Hazard deteriorating	Repair/Augment Riprap
2	204.00 - 204.40	Erosion - no beach at high tide and direct wave attack	Stockpile rock for maintenance
3	204.00- 204.50 Geologic - Major seepage from bluff and poor surface drainage, potential for liquefaction and lateral spreading of track-bed		Build subdrain cut-off for groundwater, catchment structure for slope debris surface drainage control
4	206.00 - 206.67	North end of Cyprus Shore - erosion exposing old riprap	Inspect & construct revetment as needed

*OCTA is participating in discussions about a sand replenishment program with the County of Orange and other stakeholders to protect the railroad and other infrastructure. This effort could be considered on a parallel path with the solutions above, to avoid delay of actions that are needed to ensure continual railroad operations.

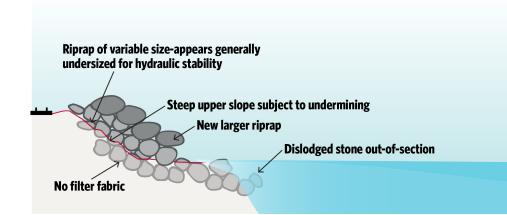
Existing Condition



MP 203.85 to 203.90

Possible Solution

Stabilize track by repairing/ augmenting existing riprap



Continuum municipality of the second s 2 SAN CLEMENTE B SAN DIEGO COUNTY Reinforcement Areas

N

dana Point

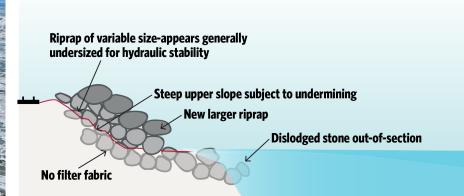
Existing Condition



MP 204.00 to 204.40

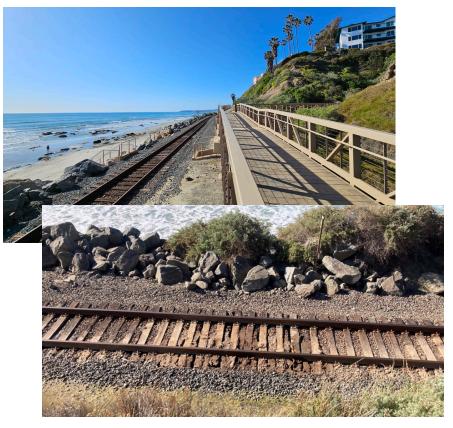
Possible Solution

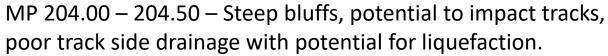
 Reinforce riprap section as needed to stabilize track





Existing Condition





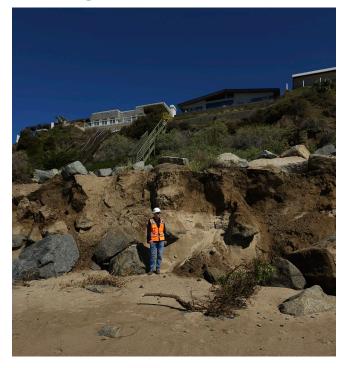
Possible Solution N dana Point minimum **CATCHMENT WALL and SIDEWALK** ATTIMUTIN THE REAL PROPERTY OF A SIDEWALK **CATCHMENT WALL** SAN CLEMENTE **RAILROAD ROW**

COASTAL RAIL RESILIENCY STUDY

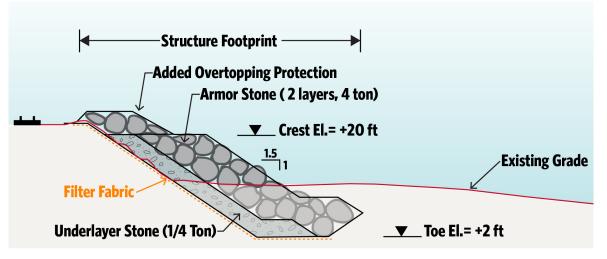
Reinforcement Area:

SAN Diego

Existing Condition



Possible Solution



MP 206.00 - 206.67 – North End of Cyprus Shore Project – Erosion exposing rock and creating a shelf adjacent to tracks where riprap once existed.

COASTAL RAIL RESILIENCY STUDY

Reinforcement Areas

N

SAN CLEMENTE

> SAN DIEGO COUNTY

Contraction of the second second

2

dana Point

Next Steps for Initial Assessment

- Governance (roles & responsibilities)
 - Develop Implementation Plan
- Regulatory Permitting Strategy
- Procedures for Emergency Response
- Stockpiles of Materials needed in emergency
- Engagement of Stakeholders (as appropriate)

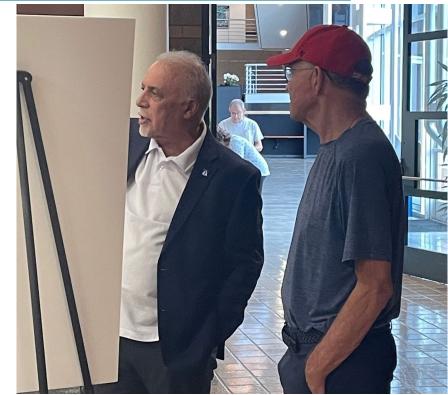




Study Outreach

Study Outreach

- Listening Sessions
- Draft Concept Outreach
- Draft Plan Outreach
- PDT Engagement
 - Monthly PDT meetings, as needed
 - Provide input on deliverables
 - Support community engagement







Study Milestones

LISTENING SESSIONS

- Engage with a wide range of stakeholders with unique and diverse backgrounds and needs
- Obtain feedback from stakeholders and interest groups: Winter '24

INITIAL CONCEPT DEVELOPMENT

- Draft Concepts: Spring to Fall '24
- Obtain feedback from stakeholders and interest groups: Fall '24

DRAFT FEASIBILITY STUDY REPORT

- Draft Report: Spring '25 Summer '25
- Obtain feedback from stakeholders and interest groups

INITIAL ASSESSMENT

- Initiated: Nov '23
- Potential reinforcement areas identified: Dec '23
- Final Report: Jan '24

PDT: Project Development Team

PURPOSE AND NEED/ EVALUATION CRITERIA

- Draft: Spring '24
 - Informed by Listening Session feedback
- Present to PDT: Spring '24

REFINEMENT OF CONCEPTS

- Refined Concepts: Spring '25
- Obtain feedback from stakeholders and interest groups: Spring '25

FINAL FEASIBILITY STUDY REPORT

- Final Report: Fall '25
- Present to Board/Publish Final Report: Fall '25



Listening Session

Listening Session – Goals

- Gather collaborative input from key stakeholders in various public and private sectors
- Listening sessions seek to:
 - Identify key stakeholders
 - Set clear expectation to maintain in-place the existing coastal rail line and minimize passenger and freight service disruptions for up to 30-years

- Assess vulnerabilities and issues of concerns
- Identify potential opportunities to further enhance collaboration
- Document feedback



Listening Session – Reinforcement Area Analysis

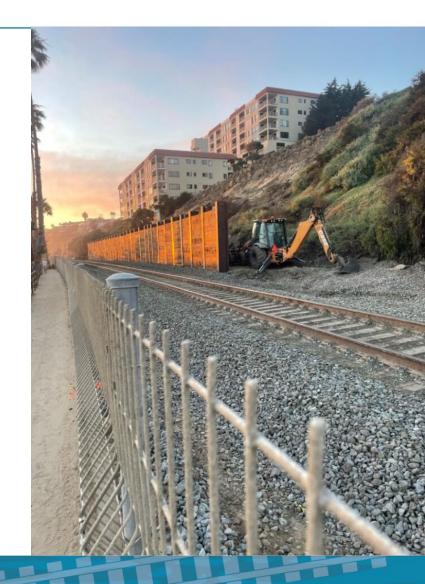
- Do you have any comments relative to the specified potential reinforcement areas?
 - MP 203 204 #1 Erosion hazard progressing north
 - MP 204 205 #2 Eroding no beach at high tide
 - MP 204 205 #3 Steep riprap may require maintenance; geologic area; major seepage
 - MP 206 207 #4 North end of Cyprus Shore erosion exposing old rock progressing north

• Are you aware of **any other conditions** that should be assessed?



Listening Session – Study Goals & Objectives

- Does your agency have any comments or questions on the short- and mid-term study?
- What are your ideas on enhancing railroad stability?
- How would you enhance communication on passenger and freight service disruptions?
- What do you see as **your agency's role** in this process?
- Are you familiar with any topical experts we should consider consulting, such as those with specialty in coastal erosion, liquefaction, etc.?
- Any other thoughts?



Listening Session – Schedule & Milestones

Study Milestones



Are there any comments or questions on the schedule and key milestones delivery timeline?

Should others from your organization be included in the PDT?

Listening Session – Public Engagement



| I I I V

- What feedback and key themes have you heard from your constituents?
- Do you have any comments or questions on the approach to public engagement?



Do you have any lists of stakeholder contacts that we should include in our notification database?



Will you be able to provide meeting notification support?



Next Steps

Next Steps

- Listening Sessions
- Refinement of Purpose and Need
- Development of Evaluation Criteria

	Listening Sessions	Description
	Project Development Team (PDT)	
	Stakeholder Working Group (SWG)	Federal, state, regional & local interest groups
	Freight & Goods Movement	Business & transportation interest groups
	Coastal & Marine Habitat Community-Based Organizations	Environmental groups
	Emergency Responders	Police departments, fire departments, coast guards & harbor patrol
	Major Employers, Key Destinations & Other Business Interests	Business associations & entertainment
	Residential Groups	Homeowner associations (HOAs)
	Elected Officials Roundtable	Federal, state, regional & local elected offices
	General Public	Virtual meeting
	General Public	In-person meeting

Stay Connected

Christina Byrne

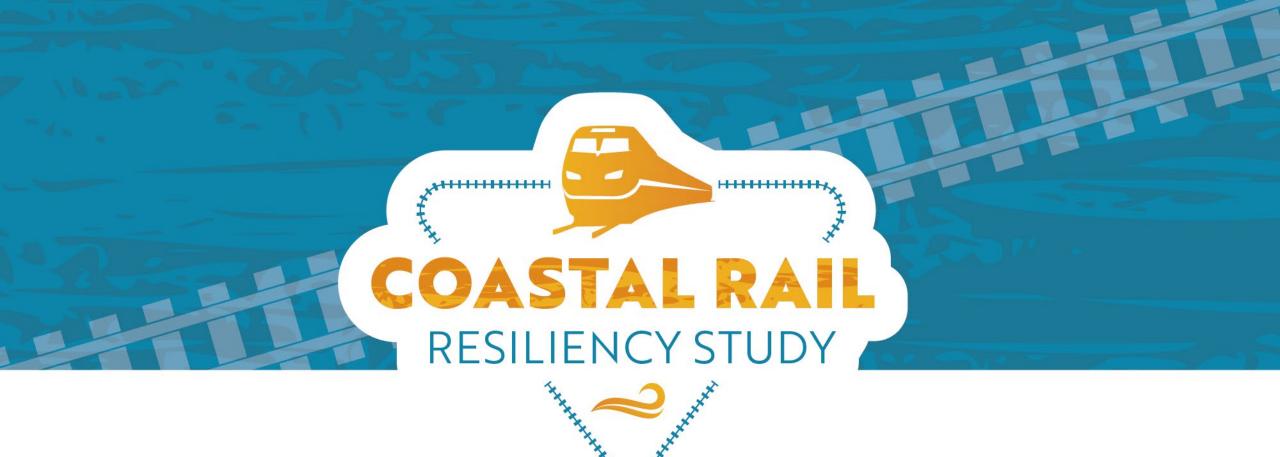
Department Manager, Public Outreach

(714) 560-5717

cbyrne@octa.net

Dan Phu Project Manager (714) 560-5907 dphu@octa.net

Project website: www.OCTA.net/CRRS



THANK YOU!

